

6.6 Preservice and Inservice Inspection and Testing of Class 2 and 3 Components and Piping

The information in this section of the reference ABWR DCD, including all subsections, tables, and figures, is incorporated by reference with the following departures and supplements.

STD DEP 6.6-1

STD DEP T1 2.14-1 (Table 6.6-1, Flammability Control System)

STD DEP T1 2.4-1 (Table 6.6-1, Residual Heat Removal System)

6.6.2.1 Class 2 RHR Heat Exchangers

STD DEP 6.6-1

The physical arrangement of the residual heat removal (RHR) heat exchangers shall be conducive to the performance of the required ultrasonic and surface examinations. ~~The RHR heat exchanger nozzle-to-shell welds will be 100% accessible for preservice inspection during fabrication but might have limited areas that will not be accessible from the outer surface for inservice examination techniques.~~ Any inservice inspection program relief request will be reviewed by the NRC staff based on the Code Edition and Addenda in effect and inservice inspection techniques available at the time of COL application. Removable thermal insulation is provided or those welds and nozzles selected for frequent examination during the inservice inspection. Platforms and ladders are provided as necessary to facilitate examination.

6.6.2.2 Class 2 Piping, Pumps Valves and Supports

STD DEP 6.6-1

Restrictions: For piping systems and portions of piping systems subject to volumetric ~~and surface~~ examination, the following piping designs are generally not used:

Straight sections of pipe and spool pieces shall be added between fittings. The minimum length of the spool piece has been determined by using the formula, $L = 2T + 15.24$ cm, where L equals the length of the spool piece (not including weld preparation) and T equals the pipe wall thickness (cm).

Where less than the minimum straight section length is used, an evaluation is performed to demonstrate that sufficient access exists to perform the required examinations.

6.6.9 COL License Information

6.6.9.1 PSI and ISI Program Plan

The following site-specific supplement addresses COL License Information Item 6.10.

STPNOC will prepare a comprehensive plant-specific PSI and ISI program plan. This plan is outlined in reference ABWR DCD Section 6.6 for class 2 and 3 components and in reference ABWR DCD Section 5.2 for class 1 components. This plan will be submitted to the NRC at least 12 months prior to commercial power operation for the respective unit, based on the final as-built plant configuration, addressing specific welds, bolting, pipe supports, etc. There will be a separate plan for Unit 3 and for Unit 4. (COM 6.6-1)

The initial inservice examinations conducted during the first 120 months of operation will comply, to the extent practical, with the requirements of the ASME B&PV Code Section XI Edition and Addenda incorporated by reference in 10 CFR 50.55a(b) on the date 12 months prior to the date of issuance of the operating license, subject to modifications listed by the reference sections.

The inservice examinations conducted throughout the service life of the plant will comply, to the extent practical, with the requirements of the ASME B&PV Code Section XI Edition and Addenda incorporated by reference in 10 CFR 50.55a(b) 12 months prior to the start of the inspection interval, subject to limitations listed by the reference sections.

6.6.9.2 Access Requirement

The following standard supplement addresses COL License Information Item 6.11.

The plans for NDE during design and construction are incorporated in order to meet all access requirements of the regulations, per IWC 2500 and IWD 2500 (Subsection 6.6.2). As an integral part of the design process, the access requirements are incorporated in the applicable specifications.

Table 6.6-1 Examination Categories and Methods

Quality Group	System Number	System Title	System Description	P&ID Diagram	Sec. XI Exam Cat.	Items Examined	Exam Method
C	T49	Flammability Control	<p>Piping from valves F006A & B up to and including the recombiner skids A & B</p> <p>All pressure retaining components and piping</p> <p>Integral attachments</p> <p>Piping and Component Supports</p> <p>All Class C piping 20A, 25A, 50A, 80A and 100A in diameter, i.e.:</p> <ul style="list-style-type: none"> - drain lines - test connections - SRV discharge line - instrument lines - small process lines - and etc. <p>All pressure retaining components and piping</p> <p>Integral attachments</p> <p>Piping and Component Supports</p>	<p>Figure 6.2-40</p>	<p>D-B</p> <p>D-B</p> <p>F-A</p> <p>Exempted per IWD-1220</p>	<p>External Surfaces (Note-7)</p> <p>Welds (Note-8)</p> <p>Supports (Note-6)</p>	<p>VT-2</p> <p>VT-3</p> <p>VT-3</p>
			<p>All pressure retaining components and piping</p> <p>Integral attachments</p> <p>Piping and Component Supports</p>	<p>Figure 6.2-40</p>	<p>D-B</p> <p>D-B</p> <p>F-A</p>	<p>External Surfaces (Note-7)</p> <p>Welds (Note-8)</p> <p>Supports (Note-6)</p>	<p>VT-2</p> <p>VT-3</p> <p>VT-3</p>

Table 6.6-1 Examination Categories and Methods

Quality Group	System Number	System Title	System Description	P&ID Diagram	Sec. XI Exam Cat.	Items Examined	Exam Method		
B	E11	RHR (Cont.)	150A-RHR-022 Piping						
			Integral attachments				Welds (Note 3)	MT	
			All pressure-retaining components and piping				External surfaces (Note 5)	VT-2	
			Piping and component supports				Supports (Note 6)	VT-3	
			Fuel pool suction lines to RHR from valves F016B & C F016A, B & C up to and including connection to the shutdown cooling suction lines of RHR B & CA, B & C	Figure 5.4-10 sh. 2	C-C				
			300A-RHR-215 Piping					Welds (Note 1)	UT, MT
			300A-RHR-114 Piping						
			300A-RHR-099 Piping						
			Integral attachments					Welds (Note 3)	MT
			All pressure-retaining components and piping					External surfaces (Note 5)	VT-2
			Piping and component supports			Supports (Note 6)	VT-3		

Table 6.6-1 Examination Categories and Methods

Quality Group	System Number	System Title	System Description	P&ID Diagram	Sec. XI Exam Cat.	Items Examined	Exam Method
B	E11	RHR (Cont.)	Fuel pool return lines from drywell spray line header up to and including valves #045B & C-F015 A, B & C	Figure 5.4 10 sh. 5, 6, 7 sh. 3, 5 & 7	C-F-2	Welds (Note 1)	UT-MT
			300A-RHR-214 Piping				
			300A-RHR-113 Piping				
			300A-RHR-099 Piping				
			Integral attachments		C-C	Welds (Note 3)	MT
			All pressure-retaining components and piping		C-H	External surfaces (Note 5)	VT-2
			Piping and component supports		F-A	Supports (Note 6)	VT-3
			All class B piping 20A, 25A, 40A, 50A and 100A in diameter, i.e.: - drain lines - vent lines - makeup lines for water leg seal including fill pump - minimum flow bypass lines - instrument lines - sampling lines - wetwell spray lines - SRV discharge lines - equalizing lines - and etc.	Figure 5.4-10 sh. 2-6	Exempted per IWC 1221 (a),(c)		

